

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



10/519335



(43) International Publication Date  
31 December 2003 (31.12.2003)

PCT

(10) International Publication Number  
WO 2004/000875 A2

(51) International Patent Classification<sup>7</sup>: C07K 7/00, 14/705, C12N 15/12, A61K 48/00, C07K 16/28, G01N 33/566, A61K 38/17, A61P 25/00

(74) Agent: SERONO INTERNATIONAL S.A. INTELLECTUAL PROPERTY; 12, Chemin des Aulx, CH-1228 Plan-les-Ouates (CH).

(21) International Application Number:  
PCT/EP2003/050246

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 20 June 2003 (20.06.2003)

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(25) Filing Language: English

(26) Publication Language: English

## Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(30) Priority Data:  
60/391,359 25 June 2002 (25.06.2002) US

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(54) Title: NOVEL KCNQ POLYPEPTIDES, MODULATORS THEREOF, AND THEIR USES IN THE TREATMENT OF MENTAL DISORDERS

(57) Abstract: The invention encompasses polypeptides and polynucleotides of three novel bipolar disorder-associated potassium channel polypeptides, KCNQ2-15bx, KCNQ2-15by and KCNQ2-15bz. The invention further relates to the use of potassium channels comprising KCNQ2 subunits for screening for modulators thereof, the use of these modulators for treating mental disorders such as bipolar disorder, schizophrenia and depression, and drugs comprising these modulators. The invention also discloses biallelic markers located in the KCNQ2 gene and their use for diagnosing mental disorders.

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PCT/EP2003/050246

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## Published:

— with international search report

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(88) Date of publication of the international search report:  
15 April 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



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